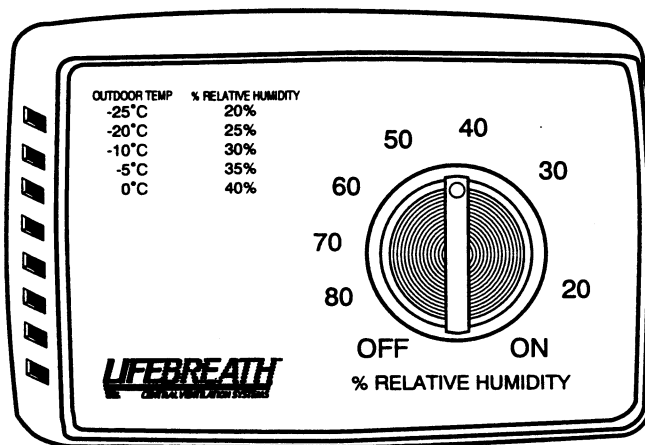# LIFEBREATH®

HEAT RECOVERY VENTILATORS (HRVs)

INSTALLATION INSTRUCTIONS

MODEL 99-129 LIFEBREATH® WALL MOUNTING REMOTE DEHUMIDISTAT

APPLICATION:

The LIFEBREATH® 99-129 Dehumidistat provides control of excess humidity in the heating season for Heat Recovery Ventilation Systems. It is designed for line voltage wall mounting and is provided with a Single Pole - Single Throw snap action dustproof electrical switch.

SPECIFICATIONS:

MODEL:

99-129- Line Voltage Dehumidistat with screw terminals.

ELECTRICAL RATING:

Line voltage only. (Up to 120 VOLT AC only).

SCALE RANGE:

20 to 80% relative humidity with OFF and ON positions.

SENSING ELEMENT:

A thin (1 mm) moisture sensitive nylon ribbon.

SETPOINT ADJUSTMENT:

Control knob on face of Dehumidistat.

OPERATING DIFFERENTIAL:

Operating differential of 4 to 6% non-adjustable.

OPERATING RANGE:

Temperature range of 10°C to 52°C (50°F to 125°F).

MOUNTING:

The 99-129 is designed for use with line voltage circuits and wall mounting without using a switch box. The case is 85 mm (3 1/4") high, 130 mm (5") wide, 50 mm (2") deep nominal including the adjustment knob.

INSTALLATION:

1. Choose a location about 1.5 m (5 ft.) above the floor on an inside wall with average room temprature and relative humidity conditions. The maximum ambient temperature must not exceed 52°C (125°F). The Dehumidistat can be mounted directly on the wall.

2. Drill a small hole in the wall and run line voltage wiring from the ventilator control panel to the location of the Dehumidistat. Leave about 150 mm (6 in.) of wire outside the wall and seal the hole to prevent drafts from affecting the Dehumidistat operation.

3. Remove the faceplate and Dehumidistat assembly from the case by prying with a screwdriver blade at the notch in the faceplate. (See Fig. 1)

4. Mount the case horizontally over the wires. Attach to the wall with the screws provided. Use plugs supplied if necessary for dry wall.

5. Connect the wires to the screw terminals on the Dehumidistat assembly (Fig. 2) and place the faceplate and assembly into the case. Connect the other end of the line voltage wires to the line voltage fan control terminal screws located on the control panel of the Heat Recovery Ventilator. For a typical wiring connection see Fig. 3.

OPERATION:

The 99-129 switch makes contact on a relative humidity rise to the setpoint which turns the ventilator on to High speed. A reduction in relative humidity to the setpoint minus the differential opens the switch contacts which returns control of the ventilator back to the fan speed setting of the speed control.

Turn the Dehumidistat control knob clockwise to the setting stop to obtain **ON** position. Set to the **OFF** position by turning the control knob counterclockwise to the setting stop.

Place the system in operation and observe through at least one complete cycle to make certain that all the components are functioning properly.

SETTINGS:

Do not set the relative humidity too high during cold weather. Excessive humidity may cause condensation on walls and windows. Use the chart below as a guide for maximum relative humidity settings for various outdoor temperatures. This chart is the same as the chart located on the top of the Dehumidistat case.

Figure 1: *Remove Faceplate*

Figure 2: *Connect Wires to Screw Terminals*

Figure 3: *Wiring Diagram*

OUTDOOR TEMPERATURE °C	-25	-20	-10	-5	0
% RELATIVE HUMIDITY	20%	25%	30%	35%	40%

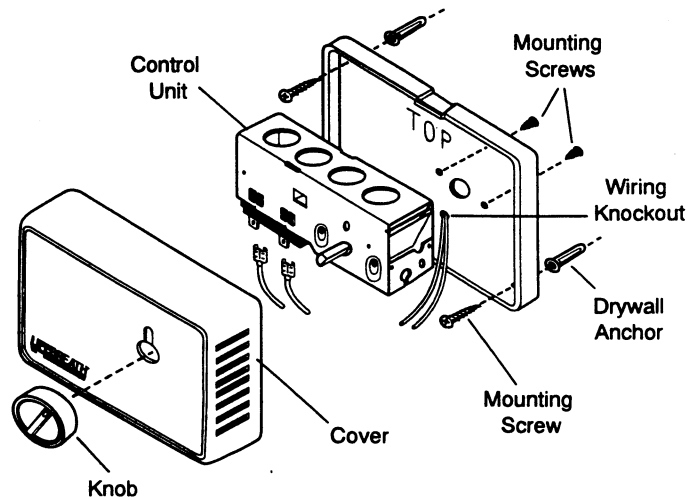## NOTE:

If condensation forms on windows or walls at the suggested settings, reduce the scale setting 1 scale point at a time after each setpoint change and allow six hours for equilibrium to be reached before re-adjusting. If condensation persists with progressively lower settings, turn the dehumidistat to ON (fully clockwise) and consult your dealer. **CONTINUED CONDENSATION FOR EXTENDED PERIODS CAN CAUSE STRUCTURAL DAMAGE TO THE BUILDING.**